



STATE OF MISSOURI
MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI ENERGY CENTER
MISSOURI ANEMOMETER LOAN PROGRAM APPLICATION

The Missouri Department of Natural Resources' Anemometer Loan Program is made possible through the U.S. Department of Energy's "Wind Powering America" initiative. To participate in the program, please follow the instructions below. Completion of the application does not guarantee the loan of an anemometer.

A. Evaluation Criteria: Applications will be evaluated using the following criteria:

1. Wind resource potential at the proposed site.
2. Landowner interest in a wind energy development project.
3. Proximity to other wind energy data collection stations.
4. Geographic dispersion throughout Missouri.
5. Community outreach.

B. Instructions

1. Read the Missouri Anemometer Loan Program Description.
2. Complete this form. (Attach additional pages as necessary. Be sure applicant's name is on all additional pages.)
3. Attach topographic map per Section F.
4. Sign Application (Section I) and **mail prior to Tuesday June 3, 2003.**

C. Intentions: Describe the purpose and goal of the project for which the anemometer is being requested (e.g. on-site energy use, small scale wind system, renewable energy demonstration, energy export – large commercial scale wind system, agricultural irrigation, etc.). If you are considering a large or commercial-scale wind farm, please provide a business plan for the proposed project. (Attach additional sheets as necessary.)

D. Community Outreach: Describe plans for community involvement, educational programs, or other partnerships that the landowner/applicant will conduct related to wind energy that involves the anemometer and resulting meteorological data. (Attach additional sheets as necessary.)

E. Load: Describe the electric load to be served by wind turbines (if installed). Please describe the load both qualitatively (e.g. residences, educational institution, business/industry, water plant, wind farm) and, if possible, quantitatively (i.e. number of kilowatt-hours per day). Do you anticipate connecting the turbines to the electric grid? (Attach additional sheets as necessary.)

F. **Proposed site.** Obtain a topographic map of the property where you would like to install an anemometer. Topographic maps can be viewed and the relevant portion accessed and printed at no cost on-line. Some free sites are listed below:

Maptech MapServer <http://mapserver.maptech.com/homepage/index.cfm>
Topozone.com <http://www.topozone.com>
Terraserver <http://terraserver.homeadvisor.msn.com>

Paper topographic maps can be purchased from several sources including:

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| Missouri Department of Natural Resources Geological Survey and Resource Assessment Division Maps and Publications P.O. Box 250, Rolla, MO 65402-0250 | Phone: (573) 368-2125 Fax: (573) 368-2481 E-mail: gsradpubs@dnr.state.mo.us |
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1. On a topographic map, or a photocopy of the relevant portion of a 'topo' map, write the landowner applicant's name and phone number, and make the following notations:
 - a. Place a bold "X" at the proposed location for the tower.
 (Note: To assemble and raise tower, the site must have an area free of trees, shrubs and other structures at least 110 feet long and 85 feet wide. When installed, the tower will be in the center of an 'X' formed by two lines 84 feet long.)
 - b. Draw approximate boundary of the landowner's property.
 - c. Write the distance, in feet, from the proposed site to the nearest man-made structure.
 - d. Label the location of any electric power lines, and buried utilities.
 - e. Label any areas on the owner's property that are excluded from consideration.
 - f. Write the legal description of the proposed site (township, range and section number or numbers).
 - g. If your map is obtained from an Internet site, and it provides site coordinate data, please record the coordinates, and the letters 'I-NET' in the upper right margin of the map. If a geographic positioning system (GPS) instrument is available, please record the coordinates of the proposed tower in the upper right margin of the map and the letters 'GPS'.

2. Will grazing animals be present during the time the tower will be in place? **Circle one: YES NO**
 Note: if grazing animals may be present, it is essential that the tower and all 4 anchors be enclosed in an animal-proof fence. If grazing will occur, the department will enclose the tower and the guy anchors with a solar powered electric fence. This fence will enclose an area approximately 100 feet in diameter, or one-fifth of an acre. Where an electric fence is used to keep out grazing animals, the landowner will be responsible for regularly mowing grass and trimming other vegetation that may short out the electric fence circuit.

3. In the following table, provide a description of the site proposed for the anemometer tower, describing features within 500 feet, including: 1) land contours, 2) structures, and 3) trees that a person standing on the proposed site would see when facing to the north, east, south and west. Note changes in land elevation, height of and distance to structures and trees.

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| Looking North | LAND CONTOURS |
| | STRUCTURES |
| | TREES |
| Looking East | LAND CONTOURS |
| | STRUCTURES |
| | TREES |

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| Looking South | LAND CONTOURS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | STRUCTURES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TREES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Looking West | LAND CONTOURS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | STRUCTURES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | TREES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Applications without a topographical map and description of the proposed site will not be accepted. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>4. Ask local government officials about potential legal obstacles to installing a wind system. For example, some jurisdictions restrict the height of structures permitted in residentially zoned areas, although variances may be obtainable. Your city, county or regional planning commission may have this information. Ask if they will require a conditional use permit for the 66-foot tower used with the anemometer.</p> <p>Is a permit required to erect the tower on your property? Circle one: YES NO</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>5. The type of tower anchor used at a site depends on the soil and subsurface conditions at the site. In each of the two rows below, please circle the description that best describes the soil and subsurface conditions at the proposed site.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 16.6%;">Depth to bedrock</td> <td style="width: 16.6%;">1) Over 5 feet</td> <td style="width: 16.6%;">2) 3 to 5 feet</td> <td style="width: 16.6%;">3) Less than 3 feet</td> <td style="width: 16.6%;">4) Bare rock</td> <td style="width: 16.6%;">5) Unknown</td> </tr> <tr> <td>Soil / subsurface</td> <td>a) Fine texture</td> <td>b) Sandy</td> <td>c) Soil / gravel mix</td> <td>d) Loose gravel</td> <td>e) Solid rock</td> </tr> </table> | | | | | | Depth to bedrock | 1) Over 5 feet | 2) 3 to 5 feet | 3) Less than 3 feet | 4) Bare rock | 5) Unknown | Soil / subsurface | a) Fine texture | b) Sandy | c) Soil / gravel mix | d) Loose gravel | e) Solid rock | | | | | | | | | | | | | | | | | | |
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| Soil / subsurface | a) Fine texture | b) Sandy | c) Soil / gravel mix | d) Loose gravel | e) Solid rock | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>G. Information Sharing Disclosure: All data gathered will be in the public domain. Data, including exact location, elevation and panoramic photos to be taken at the site, may be made available via the Department of Natural Resources' Web site and other means of distribution. It will also be provided to the U.S. Department of Energy's National Renewable Energy Laboratory (NREL) for general distribution including via NREL's Web site.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>H. Installation and Maintenance: Installation will be performed under the guidance of a department employee. The landowner/applicant is responsible for monthly inspections of the tower, cable tension and fencing, if applicable. Exchange of the data plugs must also be done on a monthly basis. Do you anticipate delegating the responsibility for monitoring the equipment and replacing the data plugs to a designated contact person?</p> <p>Circle one: Landowner Other person</p> <p>If designated contact person is someone other than the Landowner/Applicant, complete the following:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td colspan="2">CONTACT PERSON'S FIRST NAME</td> <td colspan="4">CONTACT PERSON'S LAST NAME</td> </tr> <tr> <td colspan="6">ADDRESS</td> </tr> <tr> <td colspan="3">CITY</td> <td colspan="2">STATE</td> <td>ZIP CODE</td> </tr> <tr> <td colspan="2">HOME PHONE NUMBER</td> <td colspan="2">WORK PHONE NUMBER</td> <td colspan="2">CELL PHONE NUMBER (IF APPLICABLE)</td> </tr> <tr> <td colspan="6">E-MAIL ADDRESS (PLEASE PRINT)</td> </tr> </table> | | | | | | CONTACT PERSON'S FIRST NAME | | CONTACT PERSON'S LAST NAME | | | | ADDRESS | | | | | | CITY | | | STATE | | ZIP CODE | HOME PHONE NUMBER | | WORK PHONE NUMBER | | CELL PHONE NUMBER (IF APPLICABLE) | | E-MAIL ADDRESS (PLEASE PRINT) | | | | | |
| CONTACT PERSON'S FIRST NAME | | CONTACT PERSON'S LAST NAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ADDRESS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CITY | | | STATE | | ZIP CODE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HOME PHONE NUMBER | | WORK PHONE NUMBER | | CELL PHONE NUMBER (IF APPLICABLE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E-MAIL ADDRESS (PLEASE PRINT) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I. Landowner/Applicant's Contact Information | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FIRST NAME | | | LAST NAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ADDRESS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CITY | | | STATE | | ZIP CODE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HOME PHONE NUMBER | | WORK PHONE NUMBER | | CELL PHONE NUMBER (IF APPLICABLE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E-MAIL ADDRESS (PLEASE PRINT) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

- I have read the Missouri Anemometer Loan Program Description (Form MOALP Description 3-03) and this application.
- I affirm that I am the owner of the property where the anemometer tower is proposed by this application.
- I understand that the anemometer and 66 foot tower is to be operational for at least 11 months and if mutually agreed to may be on my property for as long as 26 months.
- I understand that if my application for the use of the 20-meter tower and anemometer is approved, I will need to provide three able-bodied persons to assist when raising the tower and again when lowering the tower after the data collection period.
- I also understand that if this application results in the loan of an anemometer, it will be subject to the terms of a property loan agreement.

LANDOWNER/APPLICANT SIGNATURE

DATE

Prior to Tuesday June 3, 2003 mail the application, topographic map and any additional pages to:

Missouri Department of Natural Resources
 Outreach and Assistance Center – Energy Center
 Attn: Rick Anderson
 1659A East Elm Street
 Jefferson City, MO 65101

If you have questions please contact Rick Anderson at 1-800-361-4827.

MoALP-App: 4-03